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Phase Change Ink Formulations, Colorant Formulations, And Methods Of Forming Colorants

ABSTRACT

The invention encompasses a compound having the formula:

$$\begin{array}{c}
O\\
||\\
R_1-C-Z(CH_2)_nCH_3
\end{array}$$

wherein R_1 , Z and the carbonyl can be comprised by a common ring, wherein R_1 comprises a chromophore that absorbs light from the visible wavelength range, and wherein n is an integer that is at least 12. The invention also encompasses a solid phase change ink composition. Such composition includes a phase change ink carrier and a colorant. The colorant comprises a chromophore that absorbs light from the visible wavelength range, and has the formula:

$$\begin{array}{c}
O\\II\\R_1-C-Z(CH_2)_nCH_3
\end{array}$$

wherein R₁, Z and the carbonyl can be comprised by a common ring, wherein n is an integer that is at least 12. Additionally, the invention encompasses a method of forming a colorant. A first compound having the formula,

is reacted with a second compound having the formula $Z(CH_2)_nCH_3$, wherein n is an integer that is at least 12, to form a third compound having the formula,

wherein the third compound comprises a chromophore that absorbs light from the visible wavelength range.